Surface Matters

What Arizonans are doing with geospatial technology

Chandler HAMMs It Up With Innovative Data Update System

Anyone who works for a city's GIS division is faced with the task of maintaining the city's infrastructure data, said infrastructure consisting of thousands and thousands of identical objects like street lights and fire hydrants. The corresponding data, in turn, consist of thousands and thousands of identical features, each with a unique ID number and associated attributes. This joyful circumstance can sometimes render the GIS practitioner momentarily inert as he ponders the task of keeping everything up to date.

As the cities in Arizona continue to grow at remarkable rates, the problem of maintaining mountains of data grows with them. A key factor in keeping a handle on all this growth is innovation. The City of Chandler is developing a system for maintaining its fire hydrant data that exemplifies the innovative approach. The system, called the Hydrant Asset Maintenance Management application, or HAMM, has recently been put into use but is also being further developed. Paul Scipione, a GIS Database Analyst with the City of Chandler, aptly describes this new application:

"The purpose of the HAMM application," Mr. Scipione summarizes, "is to allow the Municipal Utilities Department to manage the business process associated with hydrant maintenance, repair, flow testing, and work orders in an efficient manner by utilizing mobile technology to collect, report, and access information in a digital format, with that information directly linked to the hydrant features in the water GIS."

That's an ambitious vision. How does it work? "The application has several components. The first part is an ArcMap document and a Visual Basic form. The ArcMap document is used to graphically display and label quarter sections based on status, such as Assigned, Work In Progress, Completed, Unassigned, and to which employee. The form is used to select from a pick list quarter sections to assign or reassign, and to which employee. When the map is refreshed, the colors and labeling reflect the changes made in the form.

"The second part is a VB/ArcObjects program that runs on a daily basis and imports data from the field into the GIS, and then re-exports the data for use the next day.

"The third part is a Crystal Reports report that reports on the number of hydrants done per year, month, day, and by employee.

"The fourth part of the application is an ArcPad customization that allows the user to 'check out' data from the GIS, and go into the field to record their maintenance activity, record any problems with a hydrant or its associated valve, then to 'check in' the data for loading into the GIS."

So to reiterate: an employee can check out the latest hydrant data and load it onto his field unit, walk up to a hydrant, input information about the hydrant from drop-down boxes, refresh the screen to see that the updates took hold, repeat this process for any
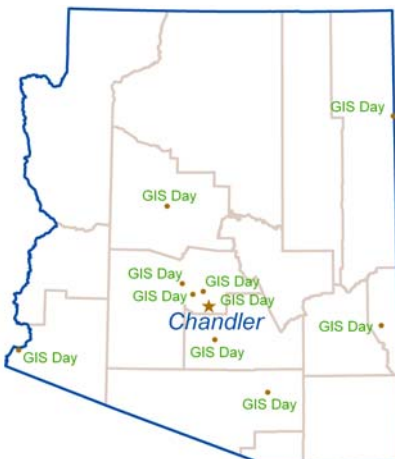
GIS Career Fest: Vital Questions Asked and Answered

Jami Garrison

ASU hosted a GIS Career Fest in October. Several AGIC Board members and GIS community leaders were invited to attend the event as panel members. Many were also encouraged to host booths displaying information about GIS activities at their organizations. Shea Lemar, of ASU GIServices, organized the event.

Shea's efforts paid off as many members from the Arizona GIS community came together to share information about careers in GIS with the ASU students. There were booths from government agencies and private firms providing information on their GIS programs and answering questions from students about what types of work are out there for students to work towards.

The event kicked off with the panel discussion. This was an informative session for the students as they learned what various agencies and firms look for in potential new hires. The panel consisted of Karen Wigglesworth from HDR, Anubahv Bagley from Maricopa Association of Governments (MAG), Tim Smothers from the City of Peoria, Ryan Arp from Weinstein Harris, and Jami Garrison from the Arizona Department of Transportation (ADOT).

There were some great questions asked and answered during the panel discussion, but two stick out in my mind as important for up-and-coming GISers to take away good information.

Q. What traits do you find are most commonly lacking in possible hires?

A. The panel was pretty much unanimous on analytical skills, professionalism and resourcefulness. Analytical skills go beyond knowing how to use the software. Yes, software skills are important, but knowing how or why you are performing certain steps – asking the questions, finding the answers from the output of the software – is a big key to success. Professionalism speaks for itself. Be professional and respectful. You may be applying for a job with a casual work environment, but a professional attitude and appearance will get you a further look. Resourcefulness is knowing where to start looking for data or for assistance with a certain task. You don't have to be Superman and know everything about everything, just be resourceful. Seek out contacts in areas that you work with; it's okay to ask for help from subject-matter experts. It's also helpful to know something about the area of expertise you may be hired into (i.e. transportation, demographics, planning, geodesy, etc).

Q. For the educators in the room, what do you (the practitioners) feel that you would like to see incorporated into classes and projects?

A. There was a laundry-list of items that the panelists would like to see added to classes and projects. The list is summarized below:

Surface Matters is the quarterly newsletter of the Arizona Geographic Information Council. It is written for those who want to stay in touch with the vision and activities of AGIC and with the continuing growth of GIS in Arizona.

Your comments about this publication are always welcome. Please send all correspondence to the editor.

Readers are invited to submit articles that they wish to be considered for publication. The author retains all copyrights. Please let the editor know if the article has been published elsewhere.

Arizona Geographic Information Council
1616 West Adams Street
Phoenix, Arizona 85007
Phone: 602-542-4060
agic@land.az.gov
http://agic.az.gov

Mention of private companies in this newsletter is for information only and does not imply endorsement by AGIC or the State of Arizona.

Message from the Board

- Knowing all the processes in the Geoprocessing Wizard (e.g. spatial joins, direct joins, georeferencing, digitizing).
- Knowledge of current software functions and processing, particularly how to do some basic scripting in Python. Also, working with the model builder to automate processes.
- Basic cartography and design skills. Anyone can slap a legend and title on a map, but making that map aesthetic is key to a quality output.
- Linear referencing and dynamic segmentation for use with routing and building networks.
- Database design and structure along with geodatabase models and how to create them.
- An understanding/introduction to CAD and surveying. Know how to read a legal description and interpret it for others.
- Principles and theory of GIS. Be able to answer questions like "What is the analysis here?" "Why am I using this tool instead of that one?" " What is the end product I expect?"
- Quality Assurance/Quality Control (QA/QC) skills. This is critical in working with data, especially large sets of data. Be able to discern and fix errors; ask the right questions to find the answers.

After the panel discussion the students visited the booths, collecting information on required skills for GIS positions, gathering handouts and, most importantly, having their questions answered about GIS careers. The students were enthusiastic, taking copious notes during the panel discussion and actively visiting with the GIS professionals at the booths. It was a successful event and one that I am sure will be repeated again next year. ◊

Chandler's Hydrant Innovations

number of hydrants, and go back to the office to check the revised data back in. Then the central GIS updates itself. Meanwhile reports can be made concerning who updated which hydrants, when they were done, and how many were done over specific time frames. Very efficient.

Chandler currently owns eight ArcPad licenses, so up to eight employees can go out to do updates at the same time. Fifteen people are trained to use the field units, while four supervisory staff are trained to do assignment and reporting.

The system didn't take all that long to develop. As Mr. Scipione further relates, "The programming for the application was started around June of 2005 with the initial rollout of the application occurring on January 2, 2006. Since then, there have been refinements and enhanced functionality added that has matured the application to what it is today.

"There was primarily one GIS database analyst doing the actual development, with some assistance from a second GIS database analyst for some aspects of the application functionality and design. ArcObjects, VB, VBscript, and SQL were utilized to develop the application."

The system currently uses ArcGIS 9.x, ArcPad 6.x, ArcPad Studio 6.x, XML Notepad 1.x, and TOAD 7.x to accomplish its many tasks.

HAMM is far from being finished. Future developments are in the works. "There are several facets left to the project. One is to integrate the collection of hydrant flow test information. Another is to generate work orders for repair/replacement and track them through completion. The final stage is to migrate several years of maintenance history from an Access 2000 database into the GIS and have them linked to the hydrants in the GIS. Once the project is fully complete, we have discussed trying to implement a similar application for use in the valve maintenance business process that is now using Wach's Valvecard/Vitals software."

One of the more significant aspects of the system is that the City of Chandler didn't buy any new software to create it. The employees who developed it built it on software products that the City already owned. That's the type of innovation that makes people take notice.

What, then, has been the outcome? Is the HAMM application paying off? What's the final word? "Yes, it is paying off, although we are not complete with all functionality as defined in our project scope, so we anticipate bigger payoffs in the near future. One of the benefits is that we can have an almost real-time status of the progress that's made on a daily basis, and that this information is easily accessible by managers and supervisors. Another benefit is that as information is collected, it's stored in the GIS, so there's no need for paper and data entry processes. The reporting aspect of the project also allows managers and supervisors to get an idea of how many hydrants can be completed in a full day, and to use this information to gauge the progress of this annual business process, and re-assign staff as needed in order to meet their annual goals in their desired timeframe. Additionally, field staff have been verifying and collecting hydrant and valve asset attribute data, and identifying other location deficiencies, thereby helping to enhance the overall quality of our hydrant and valve GIS layers." ◊

GIS Career Fest Review

The First Ever ASU/AGIC GIS Career Fest, which took place October 11, 2006, was quite possibly the first undertaking of its kind anywhere, ever, in any field. It was well attended, well received, and deemed an unequivocal success by all participants.

The approach the Career Fest took was unique, in that it addressed the concerns of both employers and potential employees in the field. It was not a job search fair or a "Look how great GIS is" promotion, it was an event at which employers could describe the skills they seek in job candidates and students could ask what knowledge they should acquire before entering the job market. It occupied a vital middle ground between technical seminars and job fairs.

The main event was the panel discussion, in which five GIS professionals were asked a series of questions relating to the uses of GIS at their organizations and the traits they look for in job candidates. Representing the private sector were Ryan Arp, Director of Land Research at Weinstein & Harris, and Karen Wigglesworth, GIS Manager at HDR, Inc. Representing different levels of government were Tim Smothers, GIS Supervisor at the City of Peoria, Anubhav Bagley, the Socioeconomic Modeling Program Manager at the Maricopa Association of Governments (MAG), and Jami Garrison, Data Bureau Manager of the Arizona Department of Transportation (ADOT).

It was clear from the panel discussion that each of the organizations hires GIS specialists from entry level to senior level, but not in great numbers. Each has a core group of four to eight people specifically dedicated to GIS, working as supervisors, programmers, analysts, technicians, or some combination thereof. Most of the organizations on the panel regularly hire interns also. It was noted that in most cases, many additional employees use GIS without being dedicated to it full-time.

A wide range of applications came to light as the panel discussion went forward. ADOT's work includes transportation and infrastructure planning, crash analysis, geocoding, and environmental analysis. MAG engages in a good deal of modeling, specifically transportation, socioeconomic, and air quality modeling, along with other tasks like address geocoding and data development. The City of Peoria applies GIS to the many areas of responsibility that any city has, such as city planning, street maintenance, water and wastewater services, engineering, and various others. All of this requires data updating and maintenance, of course. In the private sector, the two companies represented illustrate a drastic difference of focus. HDR, a worldwide architectural, engineering and consulting company, tackles all manner of applications. As projects come up it puts together interdisciplinary teams that delve into things like urban planning, water resources, solid waste, hazardous materials, noise studies, archaeology, and countless others. Weinstein & Harris, in contrast, is a commercial real estate brokerage in Scottsdale. It deals exclusively with land sales. Its GIS personnel don't develop data, they obtain land parcel data from various levels of government, tie the parcel data to their customer database, and maintain the information. They also perform economic analysis and create maps for presentation to clients.

In light of all the applications that were mentioned, one of the more pertinent questions fielded by the panel was, "What job skills do you look for in a typical GIS position?" Three main answers came to the fore: Analytical skills, being a team player, and communication. Analysis involves knowing why you're doing what you're doing, understanding the different facets of a problem and being able to decide which software tools and procedures to use in order to solve the problem. Being a team player can be looked at in two ways: working with others on a team to complete a given project, or in a more widely distributed context like a city enterprise, doing your individual part so that the whole framework is reliably maintained. Communication, of course, impacts everything else. It includes working with others on your immediate team, and interacting with more remote colleagues in different parts of the organization. It may also include talking to clients, or giving presentations to customers, public officials, or citizens. A further aspect of communication is accurately presenting information on a map so that it clearly gets your point across.

Other skills that were mentioned included knowing what GIS resources are publicly available. Some national datasets are available for free, and different city, county, and state government offices have data that can be purchased or downloaded. It's also useful to be familiar with basic geoprocessing functions, and to show a willingness to learn and to share knowledge.

It was pointed out more than once that a person seeking work as a GIS specialist should aim toward a particular field in which to use it. If you confidently declare, "I'm going to get a job in GIS," the alert conversationalist will ask, "To what will you apply it?" A vacant stare should not substitute for your well-considered reply. In other words, if you're interested in land sales, look for jobs that apply GIS to real estate. If you want to help with infrastructure, you should know something about civil engineering.

Students who attended the event found it interesting, eye-opening, and definitely worthwhile. They appreciated the panel discussion, especially the insights into employer expectations. Many were surprised by the wide variety of applications to which GIS is put.

After listening to the panel, viewing the booths and talking to assorted professionals, students came away with a wide range of impressions. Some who had decided to pursue careers in GIS had their decisions reinforced. Others were intrigued enough to seriously consider it. Still others decided that GIS, while useful and interesting, was not for them. All in all, the Career Fest was a great success. ◊

AGIC Roundup

● The AGIC Board has elected its officers for the coming year. As the calendar rolls over, Tom Sturm of the U.S. Geological Survey will take the helm as President, Tim Smothers of the City of Peoria will become Vice President, and Gary Irish of the Arizona State Land Department will continue as Secretary.

● The Administrative and Legal Issues Committee conducted a meeting to discuss the AGIC Strategic and Business Plan. The committee reviewed AGIC's past activities and assessed its progress toward meeting its goals. Further discussions will take place to determine future goals and directions.

● The Bureau of Land Management is planning to develop Hydrologic Unit Code (HUC) Level 6 data for Arizona. HUC data incorporate rivers and stream beds to determine watershed boundaries within geographic regions of varying sizes.   AGIC will contribute $2000 to help fund the initiative.

● At long last the Arizona Data Portal is in operation! The portal allows people to view more than 80 data sets. Registered users can download the data for non-commercial use. Check it out at http://agic.az.gov/portal.

● Also at long last the Arizona Imagery Server is in operation! The Imagery Server is an ArcIMS map service intended for use in ArcMap. It provides statewide orthoimagery to desktop GIS users and allows the user to view the images through a simple web interface. Downloading of imagery is not available. Information on accessing and using the server can be found at http://sco.az.gov/imagery.htm.

Calendar of Events

METADATA WORKSHOP
JANUARY 10-11, 2007
FLAGSTAFF
WWW.MPCER.NAU.EDU/METADATA/METADATATRAINING.HTM
INTENDED FOR TRIBAL MEMBERS WHO ARE BEGINNING TO INTERMEDIATE GIS USERS. FOCUSES ON FGDC STANDARDS. LIMITED TO 25 PARTICIPANTS. THE WORKSHOP IS FREE, BUT TRAVEL, LODGING AND PER DIEM ARE THE RESPONSIBILITY OF THE PARTICIPANT.

TUCSON GIS COOPERATIVE GENERAL MEETINGS
JANUARY 16, FEBRUARY 20, MARCH 20, 2007
3:00 PM
CITY OF TUCSON IT BUILDING
PUEBLO ROOM
481 W. PASEO REDONDO, TUCSON
WWW.TUCSONAZ.GOV/GIS
THE TUCSON GIS CO-OP MEETS THE THIRD TUESDAY OF EACH MONTH AT ITS REGULAR LOCATION.

NORTHERN ARIZONA GIS USER GROUP MEETING
FEBRUARY 1, 2007
8:30 AM – 12:00 NOON
TOWN OF PRESCOTT VALLEY
LOCATION TO BE ANNOUNCED
CONTACT: LARRY PRENTICE, LPRENTICE@PVAZ.NET
928-759-3126
HTTP://TECH.GROUPS.YAHOO.COM/GROUP/NAGIS_USERS/

METADATA WORKSHOP
FEBRUARY 7-8, 2007
PHOENIX
WWW.MPCER.NAU.EDU/METADATA/METADATATRAINING.HTM
INTENDED FOR TRIBAL MEMBERS WHO ARE BEGINNING TO INTERMEDIATE GIS USERS. FOCUSES ON FGDC STANDARDS. LIMITED TO 25 PARTICIPANTS. THE WORKSHOP IS FREE, BUT TRAVEL, LODGING AND PER DIEM ARE THE RESPONSIBILITY OF THE PARTICIPANT.

AGIC QUARTERLY BOARD MEETING
FEBRUARY, 2007
10:00 AM
DATE AND LOCATION TO BE ANNOUNCED
HTTP://AGIC.AZ.GOV/BOARD/MEETINGS.HTM

GIS Day

Gather 'round for tales of adventure and excitement as we bring you stories of GIS Day 2006! From high and low and far and wide across the state, geographers and geophiles set forth to celebrate a wondrous and ever-changing technology. These are the words of the very people who made it happen. Read on and be engrossed!

Way up in **Window Rock**, the Indigenous Mapping Network Talking Circle came together for GIS Day 2006. Instead of coming together in one room for the talking circle as it happened at User Conference 2006 in San Diego, or at the Southwest Users Group 2006 conference in Flagstaff, this time, the group created its circle with the help of telephones with speaker phones.

M. C. Baldwin (Navajo Nation) conducted the talking circle from Window Rock with the help of Joshua Arnold (Couer d'Alene Tribe) from Plummer, Idaho. Renee Louis (Hawaiian) took notes from the University of Hawaii as the IMN members took turns over the telecommunication infrastructure of North America. Kelly Hetzler joined the group from San Carlos Apache in southern Arizona and Rosemarie McKeon (Indigenous Nicaraguense) called in from California. Her former co-worker Andrea Martinez (Sioux) also participated from Sinte Gleska University in South Dakota.

The Talking Circle discussed the importance of updating their web pages at IndigenousMapping.net. The Indigenous Mapping Network (IMN) wants to put out the message that they train and educate tribes that want to get into GIS. Establishing a clearinghouse for spatial information is not in the plans for the group at the moment. IMN has decided to go global, because the technology has gone global and they have heard so many similar stories dealing with breaking treaties, robbing lands, etc. At a bare minimum, IMN would like to help these people from a mapping point of view. But most importantly, IMN wants people and tribes to recognize and maintain their own cultural underpinnings while engaging with this technology. IMN wants them to see GIS as just another techno-scientific based tool.

The **Town of Prescott Valley** GIS Department invited the public to participate in its first annual GIS Day, Wednesday, November 15, 2006. The event was held at the Prescott Valley Civic Center and featured hands-on activities, a map gallery, GPS, interactive mapping, demos, cake, & prizes.

The Town of Prescott Valley has embraced GIS technology since the early 90's. The GIS Day event provided a venue for the Town to showcase ways it is using GIS technology and provided an opportunity for those curious about GIS to see its applications in action.

The Town Manager, Larry Tarkowski, had this to say: "PVGIS is one of the most important tools in the toolbox for increasing efficiency and productivity for Town staff. The GIS system of the Town is regularly utilized in almost all departments: PD, Community Development, Parks and Recreation, Management Services, Town Clerk, Legal and Public Works."

GIS Day 2006 at the **City of Scottsdale** showcased the role that GIS technology plays in conducting daily business operations at one of Arizona's largest cities.

The event emphasized the extensive use of GIS throughout the municipal organization by displaying the work of many departments; a selection of maps from Transportation, Water, Planning, Fire, Tax and Licensing, as well as the GIS department, were on display in the Atrium at One Civic Center. On-line mapping applications were available for visitor interaction. Internet mapping applications such as 'My Neighborhood,' which showcases crime statistics and development applications, were displayed to show how the City of Scottsdale is utilizing GIS to provide consolidated information from disparate sources directly to the public. Slide shows explaining GIS concepts and how the technology is used at the city were also shown. Brochures, trail

maps from the Preservation department and souvenirs were available at no charge to all visitors.

In addition to City GIS staff, personnel from other city departments such as Fire, Transportation, and Parks were on hand to field questions and to make GIS Day 2006 at the City of Scottsdale a smashing success.

The **City of Peoria** GIS Day celebration brought over thirty-five attendees from the Peoria Unified School District High School's Drafting / Technical Drawing Program. The session was dedicated to exploring the world of GIS and how geography plays into the students' current learning environment – in particular, architectural drafting and site planning. Staff discussed integration opportunities between the students' drawing environment and GIS, and also how information generated through their efforts could be utilized at a more global scale.

Peoria also invited educators to come and discuss GIS programs at their respective institutions. Represented were Phoenix College, Mesa Community College, and Arizona State University. Each presenter was provided a forum to inform these future geographers as to the educational opportunities each program has to offer in order to further their geospatial knowledge base.

Staff then provided demonstrations of freely available geographic information tools provide through the Internet. These included a review of the Maricopa County GIS Portal, Google Earth, Google Earth Pro, Google SketchUp (an architectural drawing program, free for download and integrated into Google Earth), and Live.com. To exhibit the interoperability of GIS tools, attendees were taken outdoors to run a simple GPS survey of the City Hall campus (using Peoria's TopCON RTK GPS Rover), then exporting this information to a simple delimited text file and referenced to Google Earth – magic!

Demonstrations of the interoperability between the SketchUP application and Google Earth were also of great interest to the attendees. The hope was to provide these future geospatialists with a simple overview of the opportunities available to them for the future. The celebration was deemed a success, and Peoria may very well have identified some future intern labor to continue GIS development at the City – a win-win for everyone attending!

GIS Day at the **Arizona Science Center** took on a dual nature, consisting of daytime displays and an evening social. Booths were set up at 9:00AM and the event opened to the public at 10:00AM. The Science Center was visited by about 600 children from various schools who not only experienced the Arizona Science Center , but got to learn a little about GIS while they were there. The event ended about 1:30PM as the majority of the children left the facility for lunch or to return to their respective schools.

The displays included booths from Kenney Aerial Mapping, who displayed old stereo plotter viewers to be compared with the 3-D Screen images of today. The kids loved the concept of 3D and related it to the movie *Shark Boy and Lava Girl*. CADSoft Consulting had a booth to display the many uses of CAD software, while Psomas displayed how they use GIS for airport sound mitigation. However; the big hit for the kids was the foam airplanes, beach balls, and visors that were provided by Phoenix Sky Harbor International Airport 's Community Noise Mitigation Program. Stantec also had a booth which had the most GIS-oriented interactive games for the kids to better understand GIS. They were a huge success getting the children engaged in GIS activities. Finally, ACS provided a booth to talk about archeological uses.

After GIS Day ended at 2:00PM, a second round of booths was set up for the annual GIS Day Social, which ran from 5:00PM until about 8:30PM. This was a fully catered event sponsored by several vendors from the GIS community, which included TerraSystems Southwest, HEC Engineering, Allen Instruments, and Psomas. Drink tickets were provided to people who visited the vendor booths, so it was a very festive occasion. Many members of the GIS community came out in force to make the social event a real success.

Several local businesses and municipalities joined the **City of Chandler** for another successful GIS Day! This year's event was expanded to provide 28 display booths highlighting the City of Chandler's GIS technology in the areas of Crime Analysis, Planning & Development Maps, InfoMap, Environmental GIS, Valve Exercise Truck, Hydrant Asset Maintenance Management, Environmental GIS, GPS Technology, Google Earth, Fire Department Mobile GIS, Fire/Police Tactical Preplans, Street Asset Management, Traffic Communications, Neighborhood

Programs and Map Printing. Participants included ESRI, Salt River Project (SRP), Arizona Blue Stake, Chandler-Gilbert Community College, Mesa Community College, CCS Presentations, along with the **City of Mesa** and the **Town of Queen Creek**.

This year's event brought in close to 500 students and local residents. The students enjoyed the opportunity to learn how GIS technology is used in several different applications and were also entertained by the Harlem Globe Trotters during the event.

Not only did the event expand by bringing in more participants and students, the City also teamed up with SRP to host the first map contest. A map contest for grades 5-12 was sponsored by SRP honoring Dave Varela, the first GIS Manager hired at the City of Chandler in 1998. Dave lost his fight with cancer in October 2005. Dave was instrumental in moving GIS forward at the City of Chandler as well as SRP. Dave retired from SRP prior to going to the City of Chandler.

GIS Day at **Clifton** included more than four days of learning, sharing, and having fun. On Tuesday, the Clifton High School geometry class refreshed their knowledge of how to use the GPS units and collect waypoints so they would be well prepared for teaching the 5th grade class how to use GPS units and map the school grounds. On Thursday, an excited group of 5th graders, with the guidance of the high school students, mapped the perimeter of the school, the tennis courts, baseball field, and the gym. Bridgett Blair, Safford BLM, joined in the fun and shared how she uses GPS/GIS information in her job as a cartographer. The 5th graders had a lot of fun learning the new "big words" and seeing how they applied to their lives. On Friday, the 5th graders went to the distance learning lab in the Clifton High School , and began the process of learning how to use ArcGIS, turning themes on and off, locating the waypoints they had taken, and how to look at their work in the layout mode. Their maps were printed and displayed the next week in the cafeteria for all to see. Family and friends were invited to join in Clifton's first GIS Day activity.

Meanwhile in **Casa Grande**, GIS Manager Karen Thomas took a troop of Boy Scouts and their leaders to a local mountain park to learn how to use GPS. They collected point locations of assets like water fountains, picnic tables, and other objects, and they will learn how to bring the data into a GIS. The data will then be used to make maps for the Casa Grande Parks and Recreation Department. The Scouts quickly learned how to collect the data, and realized how such information could be useful to them in future campouts at the park. They showed great enthusiasm and had a terrific time!

Yuma County DDS' GIS Division had their GIS Day celebration at St. Francis School on Wednesday, November 15, 2006. We were very privileged to have our representatives, Natalie Cutsforth, and Jason Chanin here from the ESRI Colorado office. Jason gave a spirited presentation of GIS capability to the children that day. They ran some fascinating computer GIS demos of the world globe, water currents, and related items, as well as 3D visualizations of the Los Angeles area, all for the children to see how powerful and useful GIS can be.

The effort was supported by the great staff at Rural Metro here in Yuma, including Bobbie Jones, who scheduled an ambulance at the school for the children to look over and learn about, and Amy Smith and others.

We also received tremendous support from the City of Yuma Fire Department's Dusty Fields, who sent a rescue vehicle as part of the demonstrations, and David Padilla and Adrian Aust.

The Assessor Office's Anna Abad Flores and Victoria Clarkson were there to help us set things up and take them down again. Anna also contributed some great home made cookies that kept us full of energy!

We would like to thank the St. Francis School Administration, their 7th and 8th grade classes, and their teachers, Mrs. Gossman, and Mrs. Rush for their tremendous support that made this GIS Day event possible.

Thanks to all for a great learning experience for the 7th and 8th Grade students of St. Francis School!

On Friday, November 17th, the **Pima County** Department of Transportation's GIS Division hosted its ninth annual GIS Fair. In addition to the exhibits presented by the various government and local agencies showcasing their use of GIS, this year's fair included a large display of historical maps and equipment themed "Mapping - Then and Now." There was also a GIS scavenger hunt that encouraged guests to gather interesting data from exhibitor booths. Incredible food and prizes were provided by fair sponsors CADsoft, Autodesk, and DLT. Guests reported having a great time and learning much about how GIS is benefiting our community. ◊

Contributors

Melvina Adolf, Greenlee County
County Extension Director

M.C. Baldwin, Navajo Nation
GIS Systems Analyst

Gabriel Bey, PSOMAS
Project Manager

Jami Garrison, Arizona Dept. of Transportation
Data Bureau Manager
AGIC Board Member

Diane Jimro, City of Chandler
Sr. Management Assistant

Mele Koneya, City of Scottsdale
GIS Analyst

Larry Prentice, Town of Prescott Valley
GIS Coordinator

Paul Scipione, City of Chandler
GIS Database Analyst

Tim Smothers, City of Peoria
GIS Supervisor
AGIC Board Member

Karen Thomas, City of Casa Grande
GIS Coordinator

John Wharton, Yuma County

Vernon Woods, Pima County Dept. of Transportation
Sr. GIS Analyst